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EXAMINER

BATES, KEVIN T

ART UNIT PAPER NUMBER

2456

NOTIFICATION DATE DELIVERY MODE

08/27/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Office Action Summary**

Application No.

10/693,838

Applicant(s)

HUNT ET AL.

Examiner

KEVIN BATES

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 16 July 2010.
- 2a)  This action is **FINAL**.                          2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1,4-6,8-11,13,15-17,20-27,30-41,44 and 48 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1,4-6,8-11,13,15-17,20-27,30-41,44 and 48 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All   b)  Some \*   c)  None of:
    - 1.  Certified copies of the priority documents have been received.
    - 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - 3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_.

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :March 11, 2010, May 17, 2010 and July 16, 2010.

***Response to Amendment***

This Office Action is in response to a communication made on July 16, 2010.

The Information Disclosure Statements received March 11, 2010, May 17, 2010 and July 16, 2010 have been considered.

Claims 2-3, 7, 12, 14, 18-19, 28, 29, 42, 43, and 45-47 have been cancelled.

Claims 1, 17, 25, and 31 are currently amended.

Claims 1, 4-6, 8-11, 13, 15-17, 20-27, 30-41, 44, and 48 are currently pending.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 4-6, 8-11, 13, 15-17, 20-27, 30-41, 44, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayball (6308174) in view of Graupner (7035930).**

**Regarding claims 1 and 25,** Hayball teaches a method comprising:

using, by one or more computing devices, a system definition model in a development phase of a system to design the system (Col. 6, lines 58 – 66), wherein the using comprises including, in the system definition model, constraints that must be satisfied by an environment in order for the system to be run in the environment (Col. 7, lines 1 – 13; lines 28 – 42);

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subsequently using, by the one or more computing devices, the system definition model in a deployment phase of the system to deploy the system on at least one of the one or more computing devices (Col. 7, lines 8 – 13);

after deployment of the system, calling, by the one or more computing devices, one or more functions defined within the system definition model during a management phase of the system to manage the system deployed on the at least one of the one or more computing devices (Col. 11, line 66 – Col. 12, line 14; Col. 11, lines 57 – 65); and

validating, by the one or more computing devices, that the constraints are satisfied during at least the design of the system (Col. 7, lines 1 – 13; lines 28 – 42).

Hayball teaches that the system works in all communication networks, but does not explicitly indicate that the communication network is an application network.

Graupner teaches a system for modeling and estimating a computer network which further discloses that in addition to the hardware modeling, the system can further model and deploy software components to the network (Col. 4, lines 57 – 67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Graupner's model layering teaching in Hayball's teaching to allow further modeling and managing of more than just the MIB's of the computer network to allow more complete network future planning such as data center needs as shown in Graupner.

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**Regarding claims 17 and 31**, Hayball teaches one or more computer readable storage media having stored thereon a plurality of instructions that when executed by a processor, cause the processor to:

use a system definition model in a development phase of a system to design the system (Col. 6, lines 58 – 66);

subsequently use the system definition model in a deployment phase of the system to deploy the system on one or more computing devices (Col. 7, lines 8 – 13);

and

after deployment of the system, invoking one or more functions defined within use-the system definition model in a management phase of the system to manage the system deployed on the one or more computing devices (Col. 11, line 66 – Col. 12, line 14; Col. 11, lines 57 – 65).

Hayball does not explicitly indicate wherein the system is an application, the system definition model includes a representation of an environment in which the application is to be deployed, and the using includes binding the application to the representation in the system definition model, the representation including definitions for hosts of the environment of their application components and constraints on the configuration of their applications.

Graupner teaches a system for modeling and estimating a computer network which further discloses that in addition to the hardware modeling, the system can further model and deploy software components to the network (Col. 4, lines 57 – 67) including a representation of an environment in which the application is to be deployed, and the

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using includes binding the application to the representation in the system definition model (Col. 4, lines 26 – 29; Col. 8, lines 4 – 17), the representation including definitions for hosts of the environment of their application components and constraints on the configuration of their applications (Col. 3, lines 38 – 60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Graupner's model layering teaching in Hayball's teaching to allow further modeling and managing of more than just the MIB's of the computer network to allow more complete network future planning such as data center needs as shown in Graupner.

**Regarding claim 4**, Hayball teaches a method as recited in claim 1; using knowledge obtained during management of the system to design a subsequent version of the system (Col. 6, lines 20 – 34).

**Regarding claims 5, 20, 26, and 32**, Hayball teaches a method as recited in claims 1, 17, 25, and 31, wherein the system definition model includes knowledge describing how to deploy the system on the one or more computing devices (Col. 7, lines 8 – 13).

**Regarding claims 6, 21, 27, 33, and 44**, Hayball teaches a method as recited in claims 1, 17, 25, and 31, wherein the system definition model includes knowledge describing how to deploy the system on multiple different computing devices, and wherein the knowledge includes different knowledge describing how to deploy the system on each of the multiple different computing devices (Col. 7, lines 8 – 13; lines 28 – 42).

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**Regarding claims 22 and 34,** Hayball teaches a method as recited in claims 17 and 31, wherein the system definition model includes constraints that must be satisfied by the one or more computing devices in order for the system to be run on the one or more computing devices (Col. 7, lines 28 – 42).

**Regarding claims 8, 23, and 36,** Hayball teaches a method as recited in claims 7, 22, and 34, wherein the system definition model can be used to check whether the constraints are satisfied by the one or more computing devices during design of the system (Col. 7, lines 28 – 42).

**Regarding claim 9 and 35,** Hayball teaches a method as recited in claims 7 and 34; wherein the system definition model can be used to check whether the constraints are satisfied by the one or more computing devices during design of the system and during management of the system (Col. 7, lines 28 – 42; Col. 10, lines 55 – 64).

**Regarding claims 10, 24, 30, and 37,** Hayball teaches a method as recited in claims 1, 17, 25, and 31, wherein the system definition model includes knowledge describing how to manage the system after deployment of the system (Col. 11, line 66 – Col. 12, line 13).

**Regarding claim 11,** Hayball teaches a method as recited in claim 1, further comprising: during management of the system, using a flow to automatically propagate a configuration change to the system (Col. 11, lines 57-65).

**Regarding claim 15,** Hayball teaches a method as recited in claim 1, wherein a plurality of environments are deployed on the one or more computing devices, the method further comprising: using a plurality of different system definition models to



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design each of the plurality of environments, wherein each of the plurality of environments is associated with one of the plurality of different system definition models; using, for each environment, the associated one of the plurality of different system definition models to deploy the environment; and after deployment, using, for each environment, the associated one of the plurality of different system definition models to manage the environment (Col. 7, lines 28 – 47).

**Regarding claim 16**, Hayball teaches a method as recited in claim 15, wherein each of the plurality of environments is layered, and wherein each of the plurality of environments serves as environment to one other of the plurality of environments or to the system (Col. 10, lines 2 – 10).

**Regarding claim 38**, Hayball teaches a system as recited in claim 31, wherein the system further comprises:

another system definition model applicable across a lifecycle of the environment, wherein the lifecycle of the environment includes design of the environment, deployment of the environment, and management of the environment; and

wherein the schema is further to dictate how functional operations within the other system definition model are to be specified (Col. 9, lines 17 – 23; Col. 7, lines 1 – 13).

**Regarding claim 39**, Hayball teaches a system as recited in claim 38, wherein the system definition model for the environment is derived through examination of the configuration of one or more computing devices (Col. 5, lines 51-67).

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**Regarding claim 40**, Hayball teaches a system as recited in claim 38, wherein the system definition model includes constraints that must be satisfied by the environment in order for the application to be run on the environment, and wherein the other system definition model includes other constraints that must be satisfied by the application in order for the application to be run on the environment (Col. 7, lines 1 – 4; lines 28 – 47).

**Regarding claim 41**, Hayball teaches a system as recited in claim 38, wherein the system further comprises: an additional system definition model applicable across a lifecycle of an additional environment, wherein the lifecycle of the additional environment includes design of the additional environment, deployment of the additional environment, and management of the additional environment; wherein the additional environment is layered below the environment; and wherein the schema is further to dictate how functional operations within the additional system definition model are to be specified (Col. 9, lines 17 – 23; Col. 7, lines 1 – 13).

**Regarding claim 48**, Hayball teaches using another system definition model to design an environment, wherein the system is deployed to the environment on the one or more computing devices;

subsequently using the other system definition model to deploy the environment on the one or more computing devices; and

after deployment of the environment, using the other system definition model to manage the environment deployed on the one or more computing devices;

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wherein the system definition model includes constraints that must be satisfied by the environment in order for the system to be run on the one or more computing devices and wherein the system definition model includes constraints that must be satisfied by the system in order for the system to be run on one or more computing devices (Col. 6, line 58 – Col. 7, line 13).

**Regarding claim 13**, Hayball teaches a method as recited in claim 48, wherein the system definition model for the environment is derived through examination of the configuration of one or more computing devices (Col. 5, lines 51-67).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 17, 25, and 31 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN BATES whose telephone number is (571)272-3980. The examiner can normally be reached on M-F 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KEVIN BATES/  
Primary Examiner, Art Unit 2456